RECORD AND BRIEFS

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IN THE

Supreme Court of the United States

BEVERLY R. GILL, ET AL.,

Appellants,

v.

WILLIAM WHITFORD, ET AL.,

Appellees.

ON APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF WISCONSIN

BRIEF OF BERNARD GROFMAN AND RONALD KEITH GADDIE AS AMICI CURIAE IN SUPPORT OF NEITHER PARTY

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INTERESTS OF *AMICI CURIAE*[1]

Amici are political scientists who specialize in redistricting, including the statistical methods used to detect and measure partisan gerrymandering. *Amici* have served as expert witnesses and consultants in redistricting cases on behalf of both states and plaintiffs, Republicans and Democrats. They have also published many peer-reviewed articles on the subject.[2]

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[1] The parties have consented to the filing of this *amicus* brief. No counsel for a party authored the brief in whole or in part. No party, counsel for a party, or any person other than *amici* and their counsel made a monetary contribution intended to fund the preparation or submission of the brief.

[2] Professor Grofman's publications include Bernard Grofman & Gary King, *The Future of Partisan Symmetry as a Judicial Test for Partisan Gerrymandering after* LULAC v. Perry, 6 Election L.J. 2 (2007); Bernard Grofman, William Koetzle & Thomas Brunell, *An Integrated Perspective on the Three Potential Sources of Partisan Bias: Malapportionment, Turnout Differences, and the Geographic Distribution of Party Vote Shares*, 16 Electoral Stud. 457 (1997); Richard G. Niemi, Bernard Grofman, Carl Carlucci & Thomas Hofeller, *Measuring Compactness and the Role of a Compactness Standard in a Test for Partisan and Racial Gerrymandering*, 52 J. of Pol. 1155 (1990); Guillermo Owen & Bernard Grofman, *Optimal Partisan Gerrymandering*, 7 Pol. Geography Q. 5 (1988); Bernard Grofman, Michael Migalski & Nicholas Noviello, *The "Totality of Circumstances Test" in Section 2 of the 1982 Extension of the Voting Rights Act: A Social Science Perspective*, 7 L. & Pol'y 199 (1985); Bernard Grofman, *Measures of Bias and Proportionality in Seats-Votes Relationships*, 9 Pol. Methodology 295 (1983).

Professor Gaddie's publications include Charles S. Bullock, III, Ronald Keith Gaddie, & Justin J. Wert, *The Rise and*

Amici seek to assist the Court in understanding recent developments in social science methodologies for identifying and measuring the extent of partisan gerrymanders. They do not take a position on whether, given the particular facts and expert witness analysis, the district court correctly decided this case. But *amici* firmly believe that partisan gerrymanders are justiciable, and that this Court should adopt an articulable standard for adjudicating partisan gerrymandering claims. Social science tools now allow courts to diagnose partisan gerrymanders with accuracy and precision. They also allow courts to distinguish ordinary, acceptable politicking from conduct that rises to the level of unconstitutional discrimination against voters based on their political views. If the Court again declines to adopt a standard for unconstitutional partisan gerrymandering, politicians will have free rein to violate associational and representational rights.

Amicus Bernard Grofman is the Jack W. Peltason Chair of Democracy Studies and Professor of Political Science at the University of California, Irvine. He has frequently served as an expert witness and consultant in redistricting cases, including for the State of Indiana in *Davis v. Bandemer*, 478 U.S. 109 (1986), and

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Fall of the Voting Rights Act (2016); Charles S. Bullock, III, & Ronald Keith Gaddie, *The Triumph of Voting Rights in the South* (2009); Ronald Keith Gaddie & Charles S. Bullock, III, *From Ashcroft To Larios: Recent Redistricting Lessons from Georgia*, 34 Fordham Urb. L.J. 997 (2007); Ronald Keith Gaddie & Charles S. Bullock, III, *Elections to Open Seats In The U.S. House: Where the Action Is* (2000).

for the plaintiffs in *Badham v. Eu*, 694 F. Supp. 664 (N.D. Cal. 1988), *aff'd*, 488 U.S. 1024 (1989). He joined *amicus* briefs on behalf of neither party in *Vieth v. Jubelirer*, 541 U.S. 267 (2004), and *League of United Latin American Citizens (LULAC) v. Perry*, 548 U.S. 399 (2006), arguing that partisan gerrymanders are justiciable. The Court has previously cited Professor Grofman's work (including volumes he edited) in over a dozen cases,[3] and scholars often credit his brief in *LULAC* with introducing the Court to the first generation of social science analysis of partisan asymmetry.

Professor Grofman has also drawn redistricting plans for federal district courts, non-partisan commissions, and the U.S. Department of Justice—most recently, as the Special Master appointed by a three-judge court after it declared Virginia's Congressional District 3 unconstitutional. *Page v. Va. State Bd. of Elections*, No. 3:13-CV-678, 2015 WL 3604029, at *18 (E.D. Va. June 5, 2015), *appeal dismissed sub nom. Wittman v. Personhuballah*, 136 S. Ct. 1732 (2016). Professor Grofman's *curriculum vitae* is available at https://tinyurl.com/y8ppxmvg.

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[3] *See Ariz. State Legislature v. Ariz. Indep. Redistricting Comm'n*, 135 S. Ct. 2652 (2015); *Shelby County, Alabama v. Holder*, 133 S. Ct. 2612 (2013); *LULAC v. Perry*, 548 U.S. 399 (2006); *Vieth v. Jubelirer*, 541 U.S. 267 (2004); *Georgia v. Ashcroft*, 539 U.S. 461 (2003); *Abrams v. Johnson*, 521 U.S. 74 (1997); *Shaw v. Hunt*, 517 U.S. 899 (1996); *Bush v. Vera*, 517 U.S. 952 (1996); *Miller v. Johnson*, 515 U.S. 900 (1995); *Johnson v. De Grandy*, 512 U.S. 997 (1994); *Holder v. Hall*, 512 U.S. 874 (1994); *Shaw v. Reno*, 509 U.S. 630 (1993); *Thornburg v. Gingles*, 478 U.S. 30 (1986); *Davis v. Bandemer*, 478 U.S. 109 (1986).

Amicus Ronald Keith Gaddie is the President's Associates Presidential Professor and Chair of the Department of Political Science at the University of Oklahoma and an editor of *Social Science Quarterly*. He too has served as an expert witness and consultant in numerous redistricting cases, including for the State of Texas in *LULAC* and for the plaintiffs in *Cox v. Larios*, 542 U.S. 947 (2004). Most recently, Professor Gaddie worked as a consultant to the Wisconsin legislature's Republican leadership in drafting Act 43, the map at issue in this case. As the district court explained, the Republican Caucus's attorneys hired Professor Gaddie to assess, among other things, the expected partisan impact of the proposed maps. J.S. App. 12a-14a, 41a-42a, 127a, 131a, 135a, 138a-39a. Professor Gaddie also testified in defense of the map in the prior Voting Rights Act challenge, *Baldus v. Members of Wisconsin Government Accountability Board*, 849 F. Supp. 2d 840 (E.D. Wisc. 2012). He did not, however, defend the map's constitutionality in this litigation. He has always believed that partisan gerrymanders are justiciable. His *curriculum vitae* is available at https://tinyurl.com/ya62povt.

INTRODUCTION AND SUMMARY OF ARGUMENT

Modern, computer-driven redistricting now allows the political party in power to craft extremely sophisticated partisan gerrymanders. With vastly improved computer speed, memory, and storage, map drawers can design district lines so precisely that they simultaneously maximize their party's gains and eliminate most competitive districts—ensuring that the party in power enjoys an electoral advantage that

endures throughout the following decade, irrespective of voters' subsequent choices.

Left unchecked, partisan gerrymandering fundamentally undermines our democracy. It is a basic tenet of fair elections that the parties must play by the same rules. But a partisan gerrymander violates that core principle: Under a successful partisan gerrymander, one party needs fewer votes to win representation than the other party. A partisan gerrymander places unequal burdens on voters' opportunity to elect their representatives, based on the party with which they associate. And where the partisan gerrymander is unresponsive to electoral shifts, only the courts can provide a remedy.

This Court should hold that partisan gerrymandering claims are justiciable. To be precise, partisan gerrymandering occurs when a districting plan penalizes the minority in its ability to translate its voting support into seats compared to what might be expected from a plan drawn on the basis of neutral principles. But not all partisan gerrymanders are unconstitutional. The Court should adopt a test for unconstitutional partisan gerrymandering that requires a showing of three specific elements: partisan asymmetry, lack of responsiveness, and causation.

The first element, partisan asymmetry, is based on the idea that a citizen's representational rights must not depend on the party with which he chooses to affiliate. Unlike a claim that the plaintiff is entitled to a specified number of seats, an asymmetry standard requires only that the parties and their supporters receive equal treatment—that they have like

opportunity to translate their votes into representation. Thus, if Party A would garner, say, 60% of the seats when it wins 53% of the votes, Party B should also garner about 60% of the seats when it wins 53% of the votes. If it would not, partisan asymmetry is present. The second element, lack of responsiveness, screens out cases where the political process can provide a remedy. It examines whether a map is responsive to shifts in voters' allegiances, such that any disparate effect on voters is unlikely to persist throughout the decade following redistricting. If a map is responsive, then when voters change their allegiances, their representation also changes, making judicial intervention unnecessary. If a map is not responsive, the courts may step in. The third element, causation, requires that, to be actionable, a disparate effect on voters must be the result of invidious, intentional discrimination against disfavored voters—and not merely the natural byproduct of ordinary districting practices or chance.[4]

These three elements are derived from the Court's Equal Protection and First Amendment jurisprudence, and the social sciences offer tools for measuring each. Because each of these elements reflects a different concept, it is important to recognize that no one number tells it all. Rather, the Court should adopt a test for partisan gerrymandering that makes each

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[4] Intent can also be proven through non-statistical evidence—for example, legislators' own statements about their motives; departures from traditional districting criteria, such as irregular-shaped districts; and process considerations like secrecy, limited debate, or party-line voting in the enactment of the map. We focus here on the applicable social science evidence.

of these three elements a necessary, but not sufficient, condition of a claim.

In none of the Court's prior partisan gerrymandering cases did the plaintiffs propose such a test, much less offer evidence of all three elements. And the statistical tools for detecting and measuring partisan gerrymanders have improved greatly since the Court last considered partisan gerrymandering in *LULAC*. Courts—assisted by competent experts—can now reliably and accurately identify and measure the impact of partisan gerrymanders, including determining whether invidious discrimination is the cause of any disparate burden on one political party, or whether any disadvantage results instead from permissible, neutral factors or random chance. The courts can, and should, play a role in policing improper partisan gerrymanders.

ARGUMENT

I. Courts Must Provide A Check On Egregious Partisan Gerrymandering.

Invidious partisan gerrymandering occurs when a political party intentionally redraws legislative district lines to give itself a durable electoral advantage over the party out of power—usually by "packing" voters who affiliate with the opposing party into a few safe districts, or by "cracking" them across multiple districts to dilute their voting power. *See Bandemer*, 478 U.S. at 117 n.6 (explaining "the familiar techniques of political gerrymandering"). In so doing, a partisan gerrymander discriminates against voters in their representational rights because of their views

and political associations in a way that cannot realistically be ameliorated through the ordinary electoral process. *See Vieth*, 541 U.S. at 314 (opinion of Kennedy, J.) ("First Amendment concerns arise where a State enacts a law that has the purpose and effect of subjecting a group of voters or their party to disfavored treatment by reason of their views. In the context of partisan gerrymandering, that means ... where an apportionment has the purpose and effect of burdening a group of voters' representational rights.") (opinion of Kennedy, J.); *Bandemer*, 478 U.S. at 124 ("[E]ach political group in a State should have the same chance to elect representatives of its choice as any other political group.").

This discrimination in representational rights has real-world consequences. A voter who supports a disfavored party is denied an equal opportunity to use her vote to affect the representation of her district, as well as the partisan composition of the legislature as a whole. And the composition of the legislature carries high stakes. In states using a caucus system, the party holding the majority of a chamber's seats controls all aspects of the legislative agenda—from what bills will see the light of day to the budget, procedural rules, committee assignments, and so forth. *See, e.g.*, J.S. App. 7a-9a, 106a; Wis. State Assembly Rules (Feb. 8, 2017); Wis. State Senate Rules (Jan. 17, 2017). *Available at* https://tinyurl.com/y8rudrg6. Indeed, even in states where the majority party has less formal agenda-setting power, the partisan makeup of the legislature directly impacts the legislation that is introduced, debated, and passed.

There is compelling evidence that the 2010 redistricting cycle yielded partisan gerrymandering of a magnitude that is qualitatively and quantitatively different from what we have seen in the past—as much as three times more partisan bias than in the 2000 redistricting cycle—even when controlling for residential patterns of voters and demographic change. Anthony J. McGann et al., *Gerrymandering in America* 4-5, 97-98 (2016). Indeed, there were strong increases in bias even where the same party controlled both the 2000 and 2010 redistricting processes. *Id.* at 174. This increase in the aggressiveness of partisan gerrymanders may be driven in part by the fact that, as a result of the Court's "signal[] in *Vieth v. Jubelirer* (2004) that it would not intervene ... [,] state legislatures did not have to worry about the threat of legal oversight and pushed partisan advantage to its limits" during the 2010 cycle. *Id.* Absent a judicial check, the level of egregious partisan gerrymandering may worsen still in 2020 because of a marked increase in the number of legislatures under unified partisan control. *See* Nat'l Conference of State Legislatures, *State Partisan Composition*, https://tinyurl.com/guos34u (last updated Aug. 1, 2017).

Whether courts should police egregious partisan gerrymanders is not a matter of one's political leanings. While evidence suggests that at a national level, the net benefits of partisan gerrymandering currently accrue to Republicans, in the past, the benefits have accrued to Democrats. McGann et al., *supra*, at 71-72, 88. Whichever party is in power has strong incentives to change the map to keep itself there. In either case, it is the voters who lose: Their associational and representational rights are undermined based upon their

political views, and incumbents are entrenched in office without regard to changes in voter preferences.

The courts must serve as a neutral check. If the Court again declines to adopt a standard for unconstitutional partisan gerrymandering, politicians will have free rein to wield the technological advances we discuss below to craft ever more egregious partisan gerrymanders. Continued judicial abdication would ensure only that our representatives are selected by the self-dealing maps they enact, rather than elected by the people they ostensibly serve—freezing into place for a decade electoral advantages that are, for all practical purposes, impervious to changes by the electorate.

II. A Justiciable Partisan Gerrymandering Claim Requires Proof Of Partisan Asymmetry, Lack Of Responsiveness, And Causation.

Social science now provides tools for determining whether voters have been subjected to durable disparate treatment—as well as for measuring the precise magnitude of any such disparity and for ruling out neutral causes. These tools enable courts to differentiate between disparate burdens on representational rights that are merely incidental to ordinary districting processes, and those that are the result of intentional discrimination against disfavored voters.

There is consensus among social scientists that three discrete concepts are critical to detecting and measuring the extent of an unconstitutional partisan

gerrymander: (1) partisan asymmetry, (2) lack of responsiveness of electoral outcomes to changes in voter decisions, and (3) causation. The Court should adopt a test for unconstitutional partisan gerrymanders that makes proof of each of these elements necessary for a claim. Together, these elements—which, although independently derived, largely parallel the standard proposed by the plaintiffs here—are key to demonstrating that voters have suffered disparate and durable burdens on their representational rights because of their political views and associations. They also provide evidence as to whether any differential treatment is intentional or instead is the result of other, neutral factors.

This test is not based on an abstract notion of fairness akin to a requirement that seat share equal the party's share of the overall vote. It is a standard of *neutral treatment* of the parties in allocating representational rights. And the burden on voters is measured relative to the baseline created by neutral factors: single-member, winner-take-all elections (the norm in the United States); compliance with federal constitutional requirements and the Voting Rights Act; the actual residential patterns of the electorate; map-drawing practicalities like the need for contiguous and compact districts; and the role of random chance. The test recognizes that map drawing inevitably has some political fallout, while giving courts a means to distinguish and identify those egregious partisan gerrymanders that go above and beyond to invidiously target opposition voters for unequal treatment.

The first element, partisan asymmetry, considers whether and to what degree voters' representational rights have been burdened. The second, lack of responsiveness—also called "durability"—considers whether the ordinary political process is able to provide a remedy. And the third, causation, ensures that only invidious, intentional discrimination is actionable, as distinct from disparate effects that are merely the result of neutral factors or chance. No one factor is dispositive. Rather, each of these three discrete elements—partisan asymmetry, lack of responsiveness, and causation—must be assessed separately and should be deemed a necessary, but not sufficient, condition of a partisan gerrymandering claim.

A. Partisan asymmetry means there is a disparate impact on voters based on political affiliation.

The first element, partisan asymmetry, speaks to whether there has been a clear and severe disparate impact on a political party and its supporters. It asks whether the map treats similarly situated parties equally: whether both parties receive *like opportunity* to capture a given number of legislative seats if they receive a comparable share of the statewide vote.

For example, imagine that the "Democratic Party receives an average of 55% of the vote totals in a state's legislative district elections and, because of the way the district lines were drawn, it wins 70% of the legislative seats in that state." Bernard Grofman & Gary King, *The Future of Partisan Symmetry as a Judicial Test for Partisan Gerrymandering after* LULAC v. Perry, 6 Election L.J. 2, 8 (2007). This "one piece of

evidence alone" says nothing about whether any voters have been treated differently based on their political views. *Id.* That turns on whether the result would be different were the shoe on the other foot: If the Republican Party would also have received 70% of the seats in an election in which it garnered an average of 55% of the vote, then there is no disparate treatment. *Id.*

Critically, as the foregoing example indicates, a symmetry standard is not equivalent to a proportionality standard, which this Court has rightly rejected. In a system of proportional representation (used in many European countries), seats are awarded in proportion to overall vote share—i.e., 30% of the statewide votes would garner about 30% of the legislative seats. *Proportional Representation*, Encyclopedia Britannica (2013 ed.), *available at* https://tinyurl.com/y6welcph. Supreme Court precedents "clearly foreclose any claim that the Constitution requires proportional representation." *Bandemer*, 478 U.S. at 130 (opinion of White, J.).

Nor does mere disproportionality evidence a partisan gerrymander. The political science is clear: Winner-take-all, single-member district elections—elections in which a plurality of the votes wins the district's seat—do not produce proportionate results, because "in practice they normally give a 'bonus' of varying sizes (above proportionality) in seats to the party that wins a majority of the votes across a state." *See* Grofman & King, *The Future of Partisan Symmetry*, *supra*, at 9; *see also, e.g.*, Samuel S. H. Wang, *Three Practical Tests for Gerrymandering: Application to Maryland and Wisconsin*, 16 Election L.J. 367,

368, 374 (2016). Thus, it is generally not possible to directly infer asymmetry from disproportionality. *See* McGann et al., *supra*, at 65-66 ("[A symmetry standard] does not require proportionality but only that the disproportionality be the same for both parties.").

Rather than embodying a particular political theory, partisan symmetry requires only that if we were to "switch the names of the parties that received particular vote outcomes, the seat outcomes would also switch." Grofman & King, *The Future of Partisan Symmetry*, *supra*, at 8. "[I]n other words[,]" it requires "that outcomes not depend on party names." *Id.* And measures of partisan asymmetry show not only whether a map provides an advantage to one party over another, but also the *degree* of the advantage.

The scholarly literature has uniformly supported partisan asymmetry as the definition of disparate partisan impact in electoral systems since at least the late 1980s. *See id.* at 6 & nn.29-30 (canvassing publications on the subject). But as explained below (§ III), until now, the concept has never been squarely presented to this Court.

B. Lack of responsiveness means the ordinary political process cannot provide a remedy.

The second necessary element derived from social science is lack of responsiveness. While asymmetry shows a disparate effect on voters' representational rights, that alone is not enough to demonstrate an improper gerrymander. If the party out of power can alter its fate by persuading voters to support it in the

next election, then there is no need for courts to intervene. Rather, ordinary politics remain responsive to voters' preferences, and if citizens do not like the policies promulgated by their representatives (including the district maps they enact), they can vote them out of office. *See* Michael D. McDonald & Robin E. Best, *Unfair Partisan Gerrymanders in Politics and Law: A Diagnostic Applied to Six Cases*, 14 Election L.J. 312, 319 (2015) (arguing that the Court "entered the metaphorical political thicket in the 1960s on the question of malapportionment" due to "the practical problem ... that popular majorities had no political means to correct the offense"); Nicholas O. Stephanopoulos & Eric M. McGhee, *Partisan Gerrymandering and the Efficiency Gap*, 82 U. Chi. L. Rev. 831, 865 (2015) ("So long as certain plans would remain unbalanced over an array of potential outcomes ... the case for judicial intervention is unaffected.").

Moreover, the magnitude of partisan asymmetry and its expected duration can be unrelated. McGann et al., *supra*, at 65 ("These two qualities [of asymmetry and responsiveness] are independent."). In principle, even large-scale disparities in treatment of the parties can be fleeting. A constitutional standard for partisan gerrymanders should accordingly require a separate assessment of electoral responsiveness, sometimes called "durability."

Electoral responsiveness describes whether and how representation changes when voters' preferences change. Based on historical data—how much voters' preferences swung in prior elections—experts can identify the full range of realistically possible election outcomes (vote shares) and then determine how many

legislative seats, if any, would change hands in response to a comparable change in voters' choices. The number of competitive districts also provides evidence of the map's responsiveness.

If a map is not responsive, that means that when voters change their preferences and shift their allegiances from one party to another, their representation remains unlikely to change—showing that the politicians have chosen the voters, and not the other way around. In that circumstance, we can expect partisan asymmetry to endure regardless of the outcome of future elections. Conversely, high responsiveness suggests that the disparate effect on voters may not be long-lasting.

Measuring responsiveness will also detect a so-called "dummymander." Bernard Grofman & Thomas L. Brunell, *The Art of the Dummymander: The Impact of Recent Redistrictings on the Partisan Makeup of Southern House Seats*, Redistricting in the New Millennium 183, 184 (Peter Galderisi ed., 2005). As Justice O'Connor noted in *Bandemer*, some gerrymanders could be "self-limiting," if map drawers crack voters across multiple districts to create margins of victory so thin that they evaporate in future elections. *Bandemer*, 478 U.S. at 152 (O'Connor, J., concurring). But dummymanders can occur only when there are a number of competitive districts in a map. And there is empirical evidence that dummymanders are rare. *See* McGann et al., *supra*, at 226 ("A second

myth we have debunked is that partisan gerrymandering is self-limiting").[5] In any event, assessing responsiveness "allows us to distinguish those cases in which a gerrymandering might have been attempted but was not very well done from those cases in which the partisan bias imposed by gerrymandering is expected to be both substantial and long-lasting." Grofman & King, *The Future of Partisan Symmetry*, *supra*, at 13.

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[5] There are two clear explanations for why dummymanders are so uncommon: First, the newest, computer-driven redistricting now allows map drawers to make very precise refinements to district lines down to the census-block level. With this sophisticated new technology, map drawers can fashion maps that eliminate meaningful competition for most districts. *See* McGann et al., *supra*, at 87 ("[A]rmed with modern geographical information system software and an absence of judicial constraints, it is possible to engineer so much advantage that [a map can] satisfy both ... goals" of "seat maximization and incumbent protection."). Thus, generally speaking, gerrymandered victory margins are no longer so thin that they risk disappearing. *See* Samuel Issacharoff & Jonathan Nagler, *Protected from Politics: Diminishing Margins of Electoral Competition in U.S. Congressional Elections*, 68 Ohio St. L.J. 1121, 1122 (2007) ("[D]espite relative overall national parity between the parties in the post-War period, the districts held by each party tend to be more firmly in their control than ever before."). Second, political polarization of the electorate is increasing. *See* Pew Research Center, *Political Polarization in the American Public*, *available at* https://tinyurl.com/p4scahz (last updated June 12, 2014) ("Republicans and Democrats are more divided along ideological lines—and partisan antipathy is deeper and more extensive—than at any point in the last two decades."). With fewer swing voters, there is less risk of a victory margin eroding over time.

Requiring that plaintiffs demonstrate that a disparate partisan impact will be durable throughout the decade following redistricting—that the map is not responsive to voters—ensures that courts do not intervene in the political process when it is functioning properly. If the map does not persistently obstruct competition, the voters' remedy lies at the polls, not in the courts.[6]

C. Causation means that the partisan asymmetry is a result of invidious discrimination, not neutral factors or chance.

Assessing partisan asymmetry and responsiveness is still not enough. There is a consensus among social scientists that to determine whether invidious discrimination is the cause of a disparate burden on voters, it is necessary to rule out other potential causes—to assess whether the partisan effects of a plan are attributable, for example, to neutral principles, voters' residential patterns, or sheer random

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[6] Conversely, that responsiveness is low is not, by itself, enough to establish an unconstitutional partisan gerrymander. For example, if both parties agree to apportion single-member districts in proportion to their respective vote shares, that would be "effectively synonymous with requiring low levels of electoral responsiveness." Grofman & King, *The Future of Partisan Symmetry, supra*, at 9. Yet there is no need for judicial intervention when legislatures choose to apportion the state proportionately. *Gaffney v. Cummings*, 412 U.S. 735, 754 (1973) ("[J]udicial interest should be at its lowest ebb when a State purports fairly to allocate political power to the parties in accordance with their voting strength[.]"). As with asymmetry and causation, low responsiveness is a necessary but not sufficient condition for a constitutional claim.

chance. *See, e.g.*, Wang, *Three Practical Tests*, *supra*, at 374 ("[A] standard for partisan gerrymandering requires a method for determining whether a [claimed disparity] could have arisen as part of normal variation in districting as practiced across the United States."); McDonald & Best, *supra*, at 317 ("[I]n order to distinguish unintentional from intentional gerrymanders, a benchmark of what naturally would result from any neutral line drawing has to be established."); Jowei Chen & Jonathan Rodden, *Cutting Through the Thicket: Redistricting Simulations and the Detection of Partisan Gerrymanders*, 14 Election L.J. 312, 332 (2015) ("[P]artisan asymmetry in the transformation of votes to seats could happen for several reasons that cannot be traced to partisan manipulation ...."). That is, we must compare the map's disparate effects against a neutral baseline.

As the Court has noted, advantages to one party may occur due to a variety of neutral factors. *See, e.g.*, *Vieth*, 541 U.S. at 289-90 (plurality); *id.* at 308-09 (Kennedy, J., concurring). For example, map drawers must comply with the Constitution's "one-person, one-vote" and non-discrimination requirements. They also must comply with the Voting Rights Act. *See* Charles S. Bullock, III, & Ronald Keith Gaddie, *The Triumph of Voting Rights in the South* 343 (2009) (discussing partisan alignment of groups protected by Voting Rights Act). And many states' laws also require map drawers to take into account certain traditional districting criteria. Almost every state, for example, requires districts to be contiguous. Most also require compact districts that do not split political subdivisions across districts. And a handful require the preservation of communities of interest—groups of

people with a common interest like race or ethnicity. *See, e.g.*, Justin Levitt, *Where Are The Lines Drawn?*, All About Redistricting, https://tinyurl.com/aw3qgn5 (last visited Aug. 10, 2017) (collecting current, state-by-state legal requirements for redistricting); *see also* Bernard Grofman, *Criteria for Districting: A Social Science Perspective*, 33 UCLA L. Rev. 77 (1985) (Table 3) (collecting state-by-state requirements for 1980s round of redistricting).

Compliance with these neutral criteria may lead to inadvertent advantages to one party. Similarly, there is some evidence that "political groups that tend to cluster (as is the case with Democratic voters in cities) [c]ould be systematically affected by what might be called a 'natural' packing effect," *Vieth*, 541 U.S. at 290 (plurality)—although new empirical evidence indicates that this effect has been overstated. McGann et al., *supra*, at 135 ("[G]eographic and demographic constraints (such as the urban concentration of Democratic voters, the requirement to draw majority-minority districts, and the geographic sorting of voters) cannot account for the level of partisan bias we observe and certainly cannot account for the increase in bias we observe between the 2000 and 2010 districting rounds."). Partisan asymmetry could also potentially occur by random chance in the map-drawing process.

Partisan asymmetry that is merely a side effect of indisputably legitimate objectives within the redistricting process or that is naturally occurring does not evidence actionable invidious discrimination. Any constitutional test for partisan gerrymandering will thus have to rule out these causes of asymmetry and

isolate the degree of asymmetry that is "unrelated to the [legitimate] aims of apportionment," or to residential patterns or chance. *Vieth*, 541 U.S. at 313 (Kennedy, J., concurring).

As explained below (§ III), there are now extremely sophisticated and accurate methods of ruling out neutral factors as the source of partisan asymmetry. These tools enable experts to identify the precise quantum of disparate treatment that is "man-made"—the product of deliberate efforts of the party in power to penalize the opposition—as distinct from the level of disparity that may be produced by the effects of neutral districting priorities, voters' residential patterns, or chance. *See, e.g.*, Jowei Chen & Jonathan Rodden, *Cutting Through the Thicket: Redistricting Simulations and the Detection of Partisan Gerrymanders*, 14 Election L.J. 312 (2015).

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When partisan asymmetry, lack of responsiveness, and causation are each shown, we are able to establish the existence of discrimination against voters based on their political views and associations that is unlikely to be remedied by the political process. Beyond that, whether courts should nonetheless tolerate some degree of discrimination before they will intercede is a question for judges, not social scientists. The question of "how much partisan dominance is too much," *LULAC*, 548 U.S. at 420 (opinion

of Kennedy, J.), is fundamentally a legal one for courts to decide.[7]

III. The Court Has Never Before Confronted Reliable Evidence Of These Three Discrete Elements.

Social science now offers straightforward and manageable ways to prove (or disprove) partisan asymmetry, lack of responsiveness, and causation. But that was not always true. The analytical tools for evaluating each of these three elements have dramatically improved since the Court last considered the justiciability of partisan gerrymandering in *LULAC*. It is thus unsurprising that this is the first case before this Court in which the plaintiffs offered evidence of *each* of the three necessary elements. *See, e.g.*, J.S.

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[7] The available social science tools are now well suited to analyzing the kind of threshold requirements that the Court has adopted in other election-law contexts. For example, the Court could require the plaintiffs to establish that at least one seat now lost to partisan gerrymandering could be gained in a neutral plan. This is feasible because most measures of asymmetry can be translated into a percentage of the seats in a plan affected. *Cf. Bartlett v. Strickland*, 556 U.S. 1, 26 (2009) (adopting, in Voting Rights Act § 2 case, threshold requirement that plaintiffs demonstrate a "geographically compact group of minority voters [that] could form a majority in a single-member district"). Alternatively, the Court could set a threshold level of partisan asymmetry that triggers judicial scrutiny, using historical data to identify the amount of asymmetry that is atypical or egregious. *Cf. Brown v. Thomson*, 462 U.S. 835, 842 (1983) ("Our [one-person-one-vote] decisions have established ... that a [state legislative] apportionment plan with a maximum population deviation under 10% falls within this category of minor deviations [that are not actionable.]").

App. 146a-66a, 173a-74a (asymmetry and responsiveness, i.e., durability), 180a-81a, 191a-196a, 197a n.350, 200a-12a (causation, i.e., absence of justification).

A. *Bandemer*, *Vieth*, and *LULAC* did not consider evidence of partisan asymmetry, lack of responsiveness, and causation.

In the course of rejecting the plaintiffs' claims in *Bandemer*, *Vieth*, and *LULAC*, the Court hinted that partisan asymmetry, lack of responsiveness, and causation are important to a justiciable partisan gerrymandering claim. *See LULAC*, 548 U.S. at 418 (holding that "unconstitutional acts of partisan gerrymandering must do what appellants' sole-motivation theory disavows: show a burden, as measured by a reliable standard, on the complainants' representational rights"); *Vieth*, 541 U.S. at 289-90 (plurality) (holding that plaintiffs failed to establish a standard under which they were entitled to a majority of the seats, and that they failed to rule out "natural" causes of packing); *Bandemer*, 478 U.S. at 129-130, 140 (holding that plaintiffs' claims failed because proportionality is not required and because "more than a showing of possibly transitory results" is required). But in none of those cases did the plaintiffs (or the Justices) propose a test based on these elements, and the plaintiffs never provided evidence of these elements to the Court. Indeed, the first and only time the Court addressed partisan asymmetry was in *LULAC*, where only an amicus brief (which Professor Grofman joined), and not the parties, discussed the concept.

Contrary to the *Whitford* defendants' contention that the evidence in this case is equivalent to that rejected in *Bandemer* (Brief for Appellants 39), the primary evidence in *Bandemer* was that a single election had yielded slightly disproportionate results. 478 U.S. at 134 (plurality). The *Bandemer* plaintiffs offered no evidence of partisan asymmetry, lack of responsiveness, or causation. Instead of partisan asymmetry, they offered proportionality. But as Professor Grofman—Indiana's expert witness in that case—explained, it is "totally fallacious ... that a discrepancy between vote share and seat share of more than a few percentage points is proof of intentional gerrymandering." Grofman, *Criteria for Districting, supra,* at 120. Nor did the plaintiffs there offer any evidence of lack of responsiveness, leaving unrebutted the State's contention that if the plaintiffs won even an "additional few percentage points ..., they would have obtained a majority ... in both houses." *Bandemer,* 478 U.S. at 135 (plurality). Finally, plaintiffs failed to prove causation because their test left unaddressed discrepancies in treatment caused merely by "natural advantages." Grofman, *Criteria for Districting, supra,* at 120.

In *Vieth,* the plaintiffs took a somewhat different tack. They argued for a two-pronged test: (1) a predominant intent to achieve partisan advantage, shown through the subordination of neutral and legitimate criteria (i.e., intent); and (2) a "totality of the circumstances" determination that the map could "thwart the plaintiffs' ability to translate a majority of votes into a majority of seats," (i.e., effect). 541 U.S. at 284-87 (plurality).

The effects prong of this test focused on the wrong criteria: It claimed that a party that won the majority of votes was entitled to a majority of seats, without establishing any *differential* treatment of voters based on their political views and associations. Specifically, because the case was decided on a motion to dismiss, and because no election had taken place under the challenged plan, the plaintiffs' claim of adverse effects rested solely on an allegation that, in the future, they would be deprived of a majority of Pennsylvania's congressional seats, despite achieving a majority of the statewide vote. *Id.* at 272-73, 287. The plurality noted that this claim reduced to a claim of proportional representation, similar to the proportionality test urged in *Bandemer*. *Id.* at 288. And of course, there was no evidence of partisan asymmetry, responsiveness, or causation.

In *LULAC*, the district court heard limited expert evidence regarding partisan asymmetry and responsiveness, including testimony from Professor Gaddie—namely, a measure of "partisan bias" that examined how many seats each party would win if, hypothetically, each obtained 50% of the statewide vote. 548 U.S. at 466-68 (Stevens, J., concurring in part and dissenting in part). *See also* J.A., *League of United Latin American Citizens v. Perry (LULAC)*, Nos. 05-204, 05-254, 05-276, 05-439 2006 WL 64437, at *36-37 (U.S. Jan. 10. 2006) (report of Professor John R. Alford, expert for plaintiffs); *id.* at *216 (report of Professor Gaddie, expert for the State).

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the case was that the sole motive for the Texas legislature's decision to engage in mid-decennial redistricting was to reap partisan advantage. *Id.* at 416-17 (opinion of Kennedy, J.). In other words, their theory depended only on intent. In fact, they argued that "courts need not inquire about, nor parties prove, *the discriminatory effects* of partisan gerrymandering." *Id.* at 417 (emphasis added). Professor Grofman raised the concept of partisan asymmetry as relevant to discriminatory effect in his amicus brief, but the parties did not squarely present the issue. *See* Amici Br. of Prof. Gary King et al., *League of United Latin American Citizens v. Perry (LULAC)*, Nos. 5-204, 5-254, 5-276, 5-439, 2006 WL 53994 (U.S., Jan. 10, 2006).

B. The analytical tools for evaluating these three elements have dramatically improved since *Bandemer*, *Vieth*, and *LULAC*.

The analytical tools for evaluating partisan asymmetry, lack of responsiveness, and causation have also dramatically improved since *Bandemer*, *Vieth*, and *LULAC*.

In *LULAC*, Justice Kennedy expressed concern that the measure of "partisan bias" that examined how many seats each party would win if it obtained 50% of the statewide vote relied on "a hypothetical state of affairs." *Id.* at 420 (opinion of Kennedy, J.). The test of partisan asymmetry that we propose does not involve predictions about who will win future elections. Instead, if the "Democratic Party receives an average of 55% of the vote totals in a state's legislative

district elections and, because of the way the district lines were drawn, it wins 70% of the legislative seats in that state," our test asks whether the result would be different were the shoe on the other foot: If the Republican Party would also have received about 70% of the seats in an election in which it garnered an average of 55% of the vote. *Supra*, at 12-13. In any event, in cases like this one where multiple elections have occurred under the challenged plan, the accuracy of the seats-votes graph used to calculate the magnitude of any partisan asymmetry can be directly confirmed.

Moreover, new measures of asymmetry developed after *LULAC* rely on no "hypothetical" counterfactual at all. For example, the average-median difference is "a simple measure of asymmetry or skewness ... [with] well-defined mathematical properties." Wang, *Three Practical Tests*, *supra*, at 372. The average-median difference compares each party's actual vote share in its median district to its average actual vote share across all districts. If the party's median vote share is significantly lower than its average vote share, partisan asymmetry is at work. This is because "[b]y packing opposing voters into a small number of districts, the gerrymandering party holds down the targeted party's vote shares in many districts, which depresses the target party's median vote share, even while its average (mean) vote share is unchanged." Amicus Br. of Samuel S. Wang, *Harris v. Ariz. Indep. Redistricting Comm'n*, No. 14-232, 2015 WL 6774017, at *4 (U.S. Nov. 2, 2015). The average-median difference is also highly manageable for courts: "[i]t focuses on two observable numerical facts"—the mean and the median—"and subtracts one from the other." McDonald & Best, *supra*, at 316. This is the first case

in which the plaintiffs have presented evidence of the average-median difference. *See* Mot. to Affirm at 12 n.4, 21 n.8.

The plaintiffs here have also made use of another, easy-to-calculate measure that analyzes actual election results—the efficiency gap. *See* J.S. App. 159a-66a. The efficiency gap is intended to address partisan asymmetry, in that it compares how many votes each party respectively "wasted" in a given election—the votes each party received that did not contribute to it winning an additional seat. Stephanopoulos & McGhee, *supra*, at 849-50.[8] Like the average-median difference, the efficiency gap is a social science tool never before presented to the Court.

In *LULAC*, Justice Kennedy also explained that "asymmetry *alone* is not a reliable measure." 548 U.S. at 420 (opinion of Kennedy, J.) (emphasis added). As explained in § II, we agree. Although Professor Grofman's amicus brief in *LULAC* focused on the relevance of asymmetry to partisan gerrymandering

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[8] In this case, the plaintiffs also used the efficiency gap as a measure of responsiveness. They presented evidence regarding Act 43's efficiency gap in the elections following adoption of the map. J.S. App. 50a. They also presented a historical analysis suggesting that when a map exhibits an efficiency gap of a sufficiently large magnitude in the first election following its adoption (7% or more), the map is likely to continue to exhibit an efficiency gap in favor of that party for the rest of the decade. *Id.* 48a-50a. And they presented evidence of how Act 43's efficiency gap would change if citizens shifted their votes in accordance with historical patterns of vote shifts in Wisconsin. *Id.* 47a-48a.

claims, we believe a justiciable standard also requires proof of lack of responsiveness and causation.

As with asymmetry, given the evidence available to the district court, there is no need here to rely on any kind of predictions to assess responsiveness. Responsiveness can be observed directly based on election outcomes under the challenged map. In contrast, in each of the Court's prior partisan gerrymandering cases, only one election or no election had occurred under the challenged plan. *See LULAC*, 548 U.S. at 413 (opinion of Kennedy, J.) (one); *Vieth*, 541 U.S. at 272 (plurality) (none); *Bandemer*, 478 U.S. at 115 (plurality) (one). We continue to believe that experts can reliably assess the responsiveness and asymmetry of a newly enacted map by projecting the results of recent past statewide races onto the new district lines, especially in light of current extraordinarily high levels of partisan polarization. *See supra* note 5. But, when multiple elections under the challenged map have already occurred—in the instant case, there have been three—there is no need for such projections. Courts and expert witnesses can analyze *actual* election results for any disparate and durable effects on disfavored voters.

As to causation—or the absence of any neutral justification—the only evidence of causation in *LULAC* involved comparing the challenged plan to the prior map. There was no evidence isolating the degree of asymmetry that occurred from neutral redistricting criteria or chance. *LULAC*, 548 U.S. at 451-52 (Stevens, J., concurring in part and dissenting in part); *see also* J.A., *LULAC*, 2006 WL 64437, at *36-39 (report of Professor John R. Alford, expert for plaintiffs);

id. at *224-25 (testimony of Professor Gaddie, expert for the State).

Now, not only are traditional tests of statistical significance available for partisan asymmetry, vastly improved computing power permits experts to create thousands (or even many millions) of computer-generated alternative maps. These can then be screened to consider only those plans that satisfy all standard districting criteria to at least the same extent as the challenged plan, establishing the neutral benchmark against which to measure the magnitude of "man-made" asymmetry in the treatment of different blocs of voters. Using these alternative maps, we can say with a high degree of statistical confidence whether a given quantum of asymmetry is explainable by something other than invidious intent.

For example, some of the most advanced work in the field is that of Jowei Chen and Jonathan Rodden. They generate thousands of maps with simulated district lines that can control for "all legal criteria and requirements in redistricting"—maps that are at least as good as the challenged plan on all neutral criteria. Chen & Rodden, *supra*, at 335. By "measuring the partisan[] [asymmetry] of these [computer-generated] plans and contrast[ing] them with that of the plan in question," one can determine, with a high degree of statistical confidence, the extent to which the challenged plan exhibits asymmetry over and above the neutral baseline. Chen & Rodden, *supra*, at 338. Moreover, "[a]ny natural geographic advantage for one party or another will be expressed in the partisanship of the simulated plans." *Id.* Other scholars, such as Professor Wendy Tam Cho, have done very

similar computations, involving an even larger number of alternative maps. Wendy Tam Cho et al., *A Reasonable Bias Approach to Gerrymandering: Using Automated Plan Generation to Evaluate Redistricting Proposals*, 59 William & Mary L. Rev. (forthcoming 2017) (generating millions of alternative maps); *see also* Jonathan Mattingly et al., *Quantifying Gerrymandering*, https://tinyurl.com/yc4cvxkg (last visited Aug. 10, 2017) (generating 150,000 to 200,000 alternative maps for various states).

This mechanism of isolating causation was not feasible at the time of *LULAC*. Now, with dramatic improvements in computer processing speed, memory, and storage, we can produce thousands of maps in minutes. Notably, Professor Chen applied his methodology to Wisconsin's Act 43 and concluded that the "levels of natural electoral bias pale in comparison to the much more extreme electoral bias exhibited by the Act 43 plan." Jowei Chen, *The Impact of Political Geography on Wisconsin Redistricting: An Analysis of Wisconsin's Act 43 Assembly Districting Plan*, Election L.J. (forthcoming 2017) (manuscript at 3), https://tinyurl.com/y7ohowmy.

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State-of-the-art analytical tools now capture all the relevant information for detecting and precisely measuring the disparate effect of partisan gerrymanders. In particular, the various methods of measuring asymmetry are fundamentally complementary. Some are more complex in their calculations than others. But they all measure the same thing: the magnitude of the disparate burden (if any) that a challenged map

imposes on a political party and its supporters. And they all converge in conclusions in the face of an egregious partisan gerrymander. In the rare circumstance that one method is unsuitable to a particular context, another can be used instead.

While the methodology will continue to improve, future advances are likely to be incremental only—the equivalent of adding a further decimal point to an already precise figure—and will not materially alter the calculus. Moreover, experts can clearly and consistently apply existing statistical tools to assess whether each element—partisan asymmetry, lack of responsiveness, and causation—is met. Once the Court adopts a legal standard for justiciable partisan gerrymandering claims, it will be relatively straightforward for competent experts to provide their assessments of whether that standard is met in a given case.

CONCLUSION

For the foregoing reasons, the Court should hold that partisan gerrymander claims are justiciable, and it should adopt a standard that makes partisan asymmetry, lack of responsiveness, and causation necessary elements of such a claim.

Respectfully submitted,

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